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**THREE NEW CICINDELIDAE FROM SOUTH TEXAS
WITH COLLECTING NOTES ON OTHER
CICINDELIDAE (COLEOPTERA)¹**

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The following report deals with the Cicindelidae collected by the writer during 1946 and 1947 in the Lower Rio Grande Valley and vicinity, Texas. For liberal advice and encouragement in the preparation of this paper the writer is especially indebted to Dr. M. A. Cazier of the American Museum. The writer also extends his heartfelt thanks to the authorities at the U. S. National Museum who have been most cooperative in making available for study the collections of that institution which in addition to being almost completely representative of the described forms of the United States and Mexico are rich in material determined by Walther Horn.

In interpreting the records that follow, some idea of the extent and frequency of the collecting may be desirable.² The shores of the Rio Grande southwest of Mission were visited on the following dates during 1946: January 20 and 26, March 10, May 18, June 23, July 6 and 14, August 2, and December 1. Collecting at Boca Chica along the coast of the Gulf of Mexico was limited to three

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² For further details on the collecting localities see "A Biologically Annotated List of the Buprestidae of the Lower Rio Grande Valley, Texas" (In press) *Annals of the Entomological Society of America*.

visits on July 7 and 13 and October 19, 1946. The mesquite and hackberry forests along the Rio Grande flood plain southwest of Mission were visited almost weekly during 1946. In 1947 collecting was devoted largely to the brush in the uplands of Starr County, with a trip being made almost every week end. The lights about Pharr were visited at least twice weekly during 1946 and 1947.

In general, the frequency of the resulting collections indicates that the riparial and Gulf coastal forms have a wide seasonal distribution with significant populations existing during the summer and fall. The dry land forms seem to appear only during the fall and winter, with the exception of *Cicindela lemniscata* Lec. which may not be altogether a dry land form. The occurrence of the *Megacephala* arouses no comment.

***Megacephala* (*Tetracha*) *affinis angustata* Chev.**

Not uncommon on ground about lights in Pharr especially during May and June and then again in September.

***Megacephala* (*Tetracha*) *carolina* Linn.**

One specimen at light in Pharr, October 2, 1946.

***Cicindela scutellaris unicolor* Dej.**

On November 30, 1946 this sub-species was found in small numbers in the extensive sandy meadowlands between the ranges of sand hills five miles east of San Perlita, Willacy County. These beetles were usually seen on the sand piles at the entrances of pocket gopher holes. Again on January 25, 1947 when a second trip was made to the sand hill region this sub-species was found occasionally under similar circumstances thirty miles north of Raymondsville.

***Cicindela nigrocoerulea* subsp. *subtropica* subsp. nov.**

Smaller but of same form as *C. nigrocoerulea* Lec. varying from immaculate to maculate.

Female. Head across the eyes wider than pronotum; bare except for two ocular setae, coarsely striate, impunctate; clypeus and genae bare; labrum wide, hardly produced medially, with three uniform small-sized teeth, and white narrowly margined with black; palpi piceous, maxillary sparsely hairy, second segment of labial densely hairy and pale-colored; mandibles tridentate, shining black with white base; antennae bluish piceous, first, third, and fourth

segments with a few prominent terminal setae, the latter two with median setae.

Pronotum black, sericeous, bare, except for sparse closely appressed hairs at the sides, little wider than long; side margins rounded and slightly narrowed at base, widest at apical fourth; apical and basal transverse impressions deep, median longitudinal impression indicated, with transverse grooves extending therefrom; surface granulate.

Elytra black sericeous, very sparsely, obsoletely punctate; surface finely granulate, sericeous with a row of shallow foveolae along the suture and a few along the humeral impression; sides gradually widening to middle, then subparallel to apical third, then evenly rounded to apex; apical margins not serrulate; markings consist of minute humeral and posthumeral dots, a middle band indicated by anterior and posterior spots, and a narrow apical lunule.

Beneath black with faint bluish reflections; sides sparsely covered with rather short white hairs which are recumbent except for the erect hairs on the sides of the prothorax; surface minutely granulate; legs with tibiae greenish black and tarsi violaceous; anterior coxae covered with long white pile, femora and tibiae sparsely clothed with short suberect white hair. Length 10.9 mm., width 4.6 mm.

Male. Somewhat smaller than female. Length 9.7 mm., width 4.0 mm.

Type material. Described from 14 females and 8 males: one collected at Mercedes, Texas and 21 collected in S. W. Hidalgo Co., Texas, five from 2½ miles southeast and sixteen from five miles southwest of Mission; September 29 through October 27, 1946. At the second locality this species occurred in open places and along little used roadways through second growth mesquite and huisache growing in the government maintained floodway. At the last locality the species was found along lonely roadways, and in clearings in the mesquite forestland. Type material deposited as follows: type and two paratypes in the United States National Museum (No. 59,055), three paratypes in the American Museum, and allotype and remaining paratypes in the collection of the writer.

Variations. There is considerable variation in the material studied. In the females two specimens are immaculate except for a vestige of the apical lunule. In the other female specimens the markings of the type are represented, varying from bare vestiges of the markings to rather heavy maculations. The series of male specimens show the same variations with the heaviest maculate form having

vestiges of a marginal line which is absent in the other specimens. The sericeous black upper surface of a few specimens has faint greenish reflections. The under surface and legs vary from shining black with some bluish reflection to purplish or mostly blue with green and rosaceous tinges. The ratio of the width across elytra to the width of pronotum varies from 1.59 to 1.71. In the males this ratio ranges from 1.62 to 1.77. Length: 9.8–12.1 mm., width: 4.0–4.8 mm.

Comparison. This sub-species is very close to *nigrocoerulea* Lec. and may easily be confused with the black forms of that species which are represented in the U. S. National Museum by specimens from Flagstaff, Arizona and Koehler, New Mexico. Owing to its variability the writer has not been able to base this sub-species on any single character. But aside from its different geographical occurrence, it differs physically one way or another from *nigrocoerulea* Lec. in being somewhat smaller, black in color with a significantly greater tendency to be maculate, and the apical region of the elytra is somewhat more convex. Surface sculpture among the two are essentially the same including the sericeous appearance.

From *atterima* Klug with which this new sub-species bears some relationship and similarity in appearance, separation may be readily made on the irregular vermiculate pattern taken by the sericeous sheen of the former species. Also the apical areas of the elytra of this *Cicindela* are much flatter.

***Cicindela obsoleta* subsp. *neojuvenilis* subsp. nov.**

Similar in appearance to *C. obsoleta anita* Dow but considerably smaller.

Male. Head across the eyes slightly wider than pronotum, bare except for two ocular setae, granulate, impunctate, and with striae vaguely indicated; clypeus and genae bare; labrum wide somewhat produced medially, armed with three rather uniform distinct teeth, and white, margined with black; palpi purplish black, maxillary with a few hairs, second segment of labial densely hairy and white; mandibles tridentate, piceous, with base white; antennae dark purplish green with a few hairs on segments one, three and four.

Pronotum dull black with faint greenish and purplish reflections in the impressions, bare except for sparse closely appressed hairs at the sides, wider than long; side margins rounded, widest at about apical third; basal and apical transverse impressions prominent; median longitudinal impression evident with faint transverse grooves extending therefrom; surface finely granulate.

Elytra dull black; surface finely granulate with very sparse obsolete punctures just behind scutellum; humeral impression with a few setigerous punctures and sub-sutural row of foveolae represented by only six setigerous punctures at basal fourth; sides subparallel to apical fourth then evenly rounded to apex, apical margins not serrulate; markings are prominent, consisting of humeral and post humeral dots, middle band and apical lunule; middle band does not attain margin, is obliquely bent with the middle portion greatly narrowed to a bare connection between.

Beneath greenish to bluish black, sparsely hairy with erect to sub-erect white hairs; legs green, sparsely clothed with sub-erect rather coarse hairs; front femora and coxae somewhat more densely hairy, trochanters bare except for single permanent setae. Length 14.0 mm., width 5.1 mm.

Female. Somewhat more narrow than male and with post humeral spot barely indicated, middle band more reduced, and apical lunule reduced to just two small spots. Length 15.8 mm., width 6.0 mm.

Type material. Described from five male and six female specimens collected in S. W. Hidalgo County, Texas; five miles southwest of Mission; October 6 through December 1, 1946. This species was associated with the mesquite forestland along the alluvial flood plain of the Rio Grande, occurring along lonely roadways, edges of cultivated fields and in clearings. It was not a common insect and seemed to be a fall and winter species, a large specimen being seen on the wing as late as January 16, 1947. Type material deposited as follows: type and paratype in the U. S. National Museum, (No. 59,056) two paratypes in the American Museum, and allotype and remaining paratypes in the writer's collection.

Variations. On two males the markings are somewhat reduced as compared with those of the type. On two females the post humeral spot is lacking and one of these has all markings barely indicated. Another female lacks all markings except a small portion of the apical lunule. Length 13.4–15.8 mm., width 5.1–6.0 mm.

Comparison. On the basis of its geographical occurrence, coloration, and facies the affinities of this species seem to be with the Mexican *C. obsoleta juvenilis* W. H. from which it may be distinguished by its slightly broader form, impunctate elytra, broader labrum, less distinct labral teeth and by its markings which do not approach those of the Mexico *C. luteolineata* Chev. as do those of *juvenilis*. From *C. obsoleta anita* Dow *neojjuvenilis* may be separated by its smaller size, smooth elytra and the greater metallic luster of its legs and under surface.

***Cicindela punctulata punctulata* Oliv.**

A typical specimen was collected at light in Pharr, August 17, 1947.

***Cicindela tenuisignata* Lec.**

During June, July and August rather abundant $5\frac{1}{2}$ miles southwest of Mission on fine sand and silt beaches along the Rio Grande.

***Cicindela severa severa* Laf.**

On July 7 and 13, 1946 found sparingly along the broad mucky shores of a large drying salt-water lagoon behind the beach at Boca Chica (Just one mile north of the mouth of the Rio Grande).

***Cicindela lemniscata* Lec.**

Four specimens were collected at lights May 24 and September 20, 1947 in Rio Grande City. This species was occasionally seen during September and early October, 1947 in the dry uplands north of Rio Grande City.

***Cicindela cazieri* sp. nov.**

Somewhat smaller but of same form as *C. politula* Lec. Elytral maculations similar to those of *C. rufiventris* Dej.

Male. Head with eyes wider than pronotum, bare except for two ocular setae, rugose, granulose, impunctate; clypeus and genae bare; labrum wide, irregularly rounded, with an inconspicuous central tooth, ivory colored, with very narrow black margins; maxillary palpi shining green, sparsely hairy; second segment labial palpi densely hairy and white; mandibles tridentate, cupreous black with white base; four basal segments of antenna green with a few hairs on segments one, three, and four.

Pronotum coppery black, bare except for sparse but conspicuous closely appressed white hairs at the sides, little wider than long with sides rounded and slightly narrowed at base, widest at apical fourth, with apical and basal transverse impressions moderately deep and green to blue; median longitudinal impression barely indicated with fine transverse grooves extending therefrom; surface granulate.

Elytra coppery black but less metallic than pronotum, more or less sparsely and shallowly punctate, the punctures coppery to green; surface finely granulate hardly shining with a row of shallow foveolae along the suture and a few along the groove defining the umbone, these foveolae made distinct by their bright green and

cupreous color; sides sub-parallel to apical fourth, then rounded to apex; apical margins finely serrulate. Markings consist of a prominent apical lunule and a median lunule indicated by two prominent elongate spots.

Beneath green with coppery and rosaceous tinges with abdomen colored as in *C. politula*; sides moderately covered by long appressed coarse hairs; legs coppery green covered with sparse sub-erect white hairs; anterior coxae covered with long white hair. Length 10.1 mm., width 3.6 mm.

Female. Same as male except for slightly larger size. Length 11.0 mm., width 4.2 mm.

Type material. Described from three male and four female specimens collected in Starr County, Texas, ten miles north of Rio Grande City, along the edges and along dirt sideroads of the highway leading to Roberson; October 1 and 3, 1947. The beetles were numerous, but were very difficult to collect, being the most wary species that the writer has ever encountered. They were associated with *C. schauppi* Horn which was abundant and easy to collect. Type and one paratype in the U. S. National Museum collection (No. 59,057), two paratypes in the collection of the American Museum, and allotype and two paratypes in the collection of the writer.

Variations. In addition to the markings of the types, two males bear a distinct supplementary spot and a single well-marked female has this spot developed along with the post humeral spot. In another female the post humeral spot is vaguely indicated. Length 9.4–12.0 mm., width 3.5–4.5 mm.

Comparison. On the basis of its vestiture and markings, the writer considered this *Cicindela* to be a sub-species of *C. rufiventris* Dej. Then, its labrum, elytral outline, and geographic occurrence seemed to indicate stronger affinities with *C. politula* Lec. from which it could be distinguished readily on the basis of its more abundant markings, more prominent vestiture and elytral foveolae, and by its less shining (due to granulation), less conspicuously punctate elytral surface. But, as Dr. Cazier has pointed out to the writer, these differences are of sufficient magnitude to warrant consideration of the material as being of a distinct species.

In recognition of his capable and wholehearted assistance in the preparation of this paper, the writer takes pleasure in dedicating this species to Dr. Cazier.

***Cicindela flavopunctata rectilatera* Chaud.**

Abundant on fine sand and silt banks along the Rio Grande

southwest of Mission, May 12 through September. A few specimens were seen on the wing as late as December 1, 1946. Also collected occasionally at lights in Pharr during June and July and a solitary specimen was taken ten miles northeast of Rio Grande City October 5, 1946. No others were seen away from the shores of the Rio Grande River.

***Cicindela schauppi* Horn.**

Abundant locally from mid-September through October in the dry uplands north of Rio Grande City and twelve miles west of Mission (Sam Fordyce). Several specimens were at light at the latter locality on September 20, 1947. Wherever limestone outcroppings occurred in this region, this beetle usually could be found. This species was also collected sparingly at Mercedes and $5\frac{1}{2}$ miles southwest of Mission along lonely roads through the mesquite and huisache forestland.

***Cicindela circumpicta circumpicta* Laf.**

Frequent on the broad mucky shore of the saltwater lagoon at Boca Chica. July 7 through October 19, 1946.

***Cicindela trifasciata tortuosa* Lec.**

Two specimens were collected on October 19, 1946 along the mucky shores of the saltwater lagoon at Boca Chica. Another was taken at light in Pharr early in October.

***Cicindela dorsalis saulcyi* Guer.**

Common along the surf washed beach of the Gulf of Mexico at Boca Chica July 7 through October 19, 1946.

***Cicindela pamphila* Lec.**

Abundant about drying salt pools and along the shore of the saltwater lagoon at Boca Chica July 7 through October 19, 1946.

***Cicindela hamata lacerata* Chd.**

A single specimen was collected along the shores of the saltwater lagoon at Boca Chica July 13, 1946.

***Cicindela sperata sperata* Lec.**

The most abundant tiger beetle along the sand and silt beaches of the Rio Grande southwest of Mission May 18 through October 13, 1946.

***Cicindela togata togata* Laf.**

Abundant about salt flats, drying salt pools and the shores of the saltwater lagoon at Boca Chica July 7 through October 19, 1946. Just two miles south of Mission on an inland "salted out" area this species was in abundance on April 5, 1946.

SELECTED BIBLIOGRAPHY

- Blackwelder, R. E.**, 1944. Checklist of the Coleopterous Insects of Mexico, Central America, The West Indies and South America. Part 1, U.S.N.M. Bull. 185: pp. 16-20.
- Harris, E. D. and C. W. Lang.** 1916. The Cicindelidae of North America as Arranged by Dr. Walther Horn. The American Museum of Natural History, N. Y. i-vi, 23 pp.
- Horn, Walther.** 1903. List of the Cicindelidae of Mexico and their Relationship with the Species of the United States. J. N. Y. Entom. Soc. XI: 213-221.
- Cazier, M. A.** 1939. Two New Western Tiger Beetles. Bull. Brook. Ent. Soc. XXXIV: pp. 24-28.
- Leng, C. W.** 1902. Revision of the Cicindelidae of Boreal America. Trans. Am. Ent. Soc. XXVIII: 93-186, Pl. I-IV.
- Wickham, H. F.** 1899. The Habits of American Cicindelidae. Proc. Davenport Acad. Nat. Sc. VII: 206-228.